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GUIDE
to the
Zoological Garden, Calcutta

BY
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WITH
Illustrations from Photográphs taken by
MESSRS G. GIRARD, G. ALEXANDER, AND S. GANGULI,
and with a Plan of the Garden.

*Published under the authority of the Committee of management of
the Zoological Garden, Calcutta*

Calcutta :
OFFICE OF THE ZOOLOGICAL GARDEN,
1, Alipur Road.

1910.

1. Entrance Lodge (Supdt's Office).
2. Durraon House (Monkeys).
3. Crocodile Pool.
3. (a) Skating Rink.
3. (b) Hermitage (Hon. Secy's Residence).
4. Pudow Pavillion.
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6. Laligia House (Mersapijuts).
7. Old bear House.
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GUIDE

TO THE

Zoological Garden, Alipur, Calcutta.

The Zoological Garden, Alipur, was established in the year 1875, by the Government of Bengal, in co-operation with the public. It was inaugurated by His Majesty the King-Emperor Edward VII, then Prince of Wales, on the 1st of January 1876, and was opened to the public on the 1st of May of the same year.

The Government of Bengal granted a suitable piece of land for its site, about 33 acres in area, and largely contributed to the funds required for the laying out of the Garden, and for erecting buildings, enclosures, etc. It contributes also to a large extent to the maintenance of the establishment.

It is to the enterprising spirit and untiring energy of Mr. L. Schwendler supported by Sir Richard Temple, then Lt.-Governor of Bengal, that the public are indebted for this beautiful and interesting Garden.

The *objects* of the Garden are :-

1. To provide recreation, instruction, and amusement for all classes of the community ;
2. to facilitate scientific observation of the habits of animals generally, and, in particular, of those peculiar to tropical climates ;
3. to encourage the acclimatization, domestication, and breeding of foreign animals ; and

4. to promote Zoology as a Science by means of interchange, import and export of animals.

The Garden not only serves as a place for the exhibition of various kinds of animals, but it was likewise designed to provide a model of landscape gardening. It possesses extensive sheets of water, large shady trees, parterres of indigenous and exotic plants, fine plots diversified with ornamental structures, etc.

The *Patrons* of the Garden are—His Majesty the King-Emperor and His Excellency the Viceroy and Governor-General of India. Its President is His Honor the Lieutenant-Governor of Bengal. The management is entrusted to an Honorary Committee appointed by the Government of Bengal, and a paid staff of officers and servants. The *Committee* consists of a President, a Vice-President, a Secretary, and members whose number is not limited, but all of whom must be life members of the Garden, with the exception, however, of a few *ex-officio* members. The paid staff consists at present of a resident Superintendent, an Assistant Superintendent and Accountant, an Overseer, a Store-clerk, a Gate clerk, and about a hundred keepers, gardeners and labourers.

The Garden is open daily from half an hour before sunrise to one hour after sunset.

The *charge for admission* is a fee of *one anna* per head on all days except Sundays when from sunrise till 2 p. m. it is *four annas*, and from 2 p. m. till sunset, *one rupee*. *

Carriages :—*One rupee* plus the usual admission fee for *each* person in the carriage, except the coachman and syces.

Palanquins :—*Eight annas* plus the usual admission fee for each person in it.

* Free admission has been allowed on the 2nd Monday in the month, at present for six months, from August 1909.

Children under 4 years are free on all days.

Family season tickets can be had on payment of Rs. 16 a year.

Life member's tickets can also be had on payment of Rs. 100 and Rs. 150 (Vide rules of the Garden).

Means of Access to the Garden.

The Entrance Gate of the Garden is situated on the Belvedere Road and may be approached by the following routes :—

1. The Belvedere Road—for visitors coming from the Calcutta side either in carriages or on foot.
2. The Orphangunge Road—for visitors travelling by tram cars.
3. The Kalighat Bridge Road—for those coming from Kalighat. This route is largely used by visitors who come as pilgrims to the temple at Kalighat.

On entering the Garden the visitor is recommended to follow the path to the left of the main drive, which will lead him to

2. The Dumraon House,

—a house given up entirely to apes and monkeys. It was built in the year 1878, in honor of the Maharaja of Dumraon, and extensively remodelled in the year 1906. The house is well shaded by trees and is admirably suited during the hot weather for monkeys coming from a comparatively cold climate. The two main buildings of which it consists are connected by a central iron cage. Each building is divided into several compartments or cells built of iron bars and wire-netting; and each compartment or cell is so arranged as to allow all the inmates

to have access by turns into the big outer cage for open-air and exercise. By providing these open-air cages the mortality among monkeys from phthisis (a common and frequently fatal disease in the majority of European Monkey Houses) has been considerably checked. The following specimens among others are now exhibited—

Rhesus Monkey (*Macacus rhesus*), *B. Mookat, H. Bandar.*

It is well-known in Lower Bengal, and widely distributed all over India. It appears to vary much in colour, size, and thickness of the fur and even of the tail. The characteristic red colour of the face and callosities of the adult monkey are partially or altogether wanting in many.

Burmese Pig-tailed Monkey (*Macacus leoninus*).

The species is found in Arracan and Upper Burma, and can be distinguished by its shorter limbs, short muzzle, long hair, and black horse-shoe shaped crest on the forehead. It has a short tufted tail which it generally carries over its back.

Macaque Monkey (*Macacus cynomolgus*).

Resembles the Rhesus monkey in general appearance : but its tail is much longer, about 19 inches ; colour of the body is grey or greyish brown : the face generally dusky ; eye-lids white. Found in the Irrawadi Valley, Burma, the Malayan Peninsula, and Siam.

Brown Stump-tailed Monkey (*Macacus arctoides*).

Stands about 2 feet high, thick-set in build, has abundant long hair : hair of the crown slightly parted in middle and wavy at the shoulders : tail almost rudimentary ; large area of the seat bare ; face red. Found in Cochin China, Assam, and Eastern Tibet.

Lion-tailed Monkey or Wanderoo Monkey (*Macacus silenus*), *B. Nil bandar : H. Shia bandar.*

A magnificent-looking, black-coloured, slender-built animal. Its chief features are its ruff of light-coloured hair on the chin, throat, cheeks, and temples encircling the head, and tufted tail. In appearance, it resembles a black-faced old man with shaggy whiskers and beard. It is commonly found in Cochin, the Travancore forests, and West India.

Bonnet Monkey (*Macacus sinicus*), *H. Bandar.*

A brown-coloured monkey, has no reddish tinge in the face or about the seat. Its distinguishing mark is the hair on the crown of its head radiating from the centre. Found in South India.

Weeper Capuchin (*Cebus capucinus*).

This animal has a peculiar low whistling cry. It also has a prehensile tail and becomes very tame in captivity. Found in Brazil.

On leaving the DUMRAON HOUSE the visitor will find a little way to the south of it -

3. The Crocodile Pool.

This was originally a snake-rockery, which, although very popular at one time, had lost its attraction since the erection of the more imposing "REPTILE HOUSE." In 1907 the Snake-Pit was converted into a Crocodile Pool. *

The existing members of the order *Crocodila* are found in tropical and sub-tropical regions, both of the New and the Old World. Their groups are commonly recognised as—

(1) CROCODILES ; (2) ALLIGATORS ; (3) GHARIALS.

The head of the Crocodile is somewhat narrower and longer than that of the Alligator ; and the teeth are not so markedly unequal. The large first lower tooth bites into a pit, but this is not the case with the large fourth lower tooth which merely bites into a groove and is partly visible when the mouth is shut. The united parts of the lower jaw are somewhat longer than in the Alligator ; the hind limbs have a jagged posterior fringe ; and the feet are more completely webbed than those of the Alligator. The Gharial can be distinguished by its extremely slender snout and jaws armed with a larger number of comparatively small teeth, all fairly equal in size, and arranged with greater regularity, than either in the Alligator or the Crocodile.

Crocodiles are found in America, Africa, South Asia, India and North Australia.

Alligators are found in America and China.

Charials are found in India, -in the Ganges, the Indus, and the Brahmaputra.

GHARIAS are occasionally exhibited in the Garden, but they do not appear to thrive very well in captivity.

Leaving the CROCODILE POOL the next object which attracts the visitor's attention is—

4. The Peafowl Pavilion.

In addition to the common Indian, Burmese, and the white Peafowl, the pavilion contains a pair of the well-marked variety described under the name of "BLACK-SHOULDERED PEACOCK" (*Pavo nigripennis*). Birds belonging to this variety closely resemble the hybrids between *Pavo cristatus* and *Pavo muticus*, but as has been clearly shown by Darwin the black-winged variety arises independently in flocks of *Pavo cristatus*, which has been a pure breed for many years. There can be no doubt that it is a sport of nature. Opposite, the visitor will find

5. The Porcupine Shed,

which contains the following species:—THE SHORT-SPINED PORCUPINE (*Hystrix longicauda*) : THE INDIAN CRESTED PORCUPINE (*Hystrix leucurus*) : THE BRUSH-TAILED PORCUPINE (*Atherurus fasciculata*).

A few paces onward to the south, a footpath diverging from the main road leads the visitor to

6. The Lalgola House,

erected at the cost of the Raja of Lalgola, Murshidabad, which is appropriated to the representatives of pouch-bearing animals or *Marsupials*. They are remarkable for bringing forth their

young in an imperfectly developed state. After their birth the young Marsupials attach themselves to the teats of their mother, inside a pouch placed under the abdomen, and remain there until sufficiently grown to be able to shift for themselves. This method of reproduction may often be seen in the Kangaroos and Wallabies, which freely breed in the Garden. There are several varieties of the Kangaroo, all of which are natives of Australia, Tasmania, and adjacent islands, and all have the same general habits. The Kangaroos are peculiar-looking



THE GREAT KANGAROO.

animals having small rabbit-like heads with large soft ears, and strong hind quarters, with a powerful massive tail. When they stand erect, the weight of the body is supported by the hind legs and tail; the mode of progression is by leaps. Kangaroos

are purely herbivorous animals. Among the representatives of this family the following are generally exhibited here :—

- The Great Kangaroo** (*Macropus giganteus*).
- „ **Rufus Kangaroo** (*Macropus rufus*).
- „ **Great Wallaroo** (*Macropus robustus*).
- „ **Rufus-necked Wallaby** (*Macropus ruficollis*).
- „ **Rat Kangaroo** (*Potorous Kuductylus*).

Close by is a group of three houses, which radiate from a common centre and are now inhabited by GUINEA PIGS and RABBITS, and SIX BANDED ARMADILLOS (*Dasyurus sexcinctus*). The ARMADILLO is a South American animal, not very interesting to the visitor, as it remains quietly asleep almost the whole day. In the afternoon, however, it becomes very lively and excited, and runs up and down in the cage, just before its meal. The chief characteristic of this species is the presence of a hard bony covering which protects the upper surface of the head and body. If frightened, it can withdraw its limbs under the bony covering. It has powerful legs covered with bony scales enabling it to dig earth very rapidly.

At this corner of the Garden, begin

8. The Ruminants' Paddocks

which extend as far north as the SAMBUR ENCLOSURE near the GUBBAY HOUSE.

The following species of ruminants may usually be seen :—

The Indian Gazelle (*Gazella bennetti*). *H. Chinkara*, found throughout India.

The Hog Deer (*Cervus porcinus*). *H. Pírí*, which belongs to the same sub-region as the Sambur, and is distributed throughout India, Burma, and Ceylon.

The Barking Deer (*Cervus muntjac*). *H. Kakar*, occurring throughout India, ascending the Himalayas up to about 8000 feet, and extending eastward through Burma to the Malayan Peninsula and Sumatra.

The Nilgai or Blue Bull (*Boselaphus tragocamelus*). It is confined to India extending from the Himalayas as far down as South Mysore, being specially numerous in Central India. The sexes differ in colour. The Nilgai is very uncertain in temper, specially during the breeding season. Nilgais breed freely in the Garden.

The Barasingha or Swamp Deer (*Cervus duvaucelii*). The Indian name "BARASINGA" is very significant of this deer, in that each antler (*vrunga*) of the animal has generally six well-developed tines. It is found in the swampy localities on the bank of the Indus, in the Terai, Orissa, Mysore, and Assam. The adult male is a fierce animal when he has his horns; but after he sheds them he undergoes a complete change both in respect of his colour and temperament. His coats assume a beautiful reddish fawn colour and he becomes as mild and docile as a lamb.

The Mithan or Gyal (*Bos frontalis*). They are the semi-domesticated wild cattle of the Chittagong Hill tracts, Assam, Cachar, etc. They are recorded as having been observed grazing with the Yak at considerable altitude in the Mishmi country. The wild form GAUR (*Bos gaurus*) has often been exhibited in the Garden; but unfortunately it does not bear captivity well. As diversity of opinion still exists as to the identity of the Gyal and the Gaur, it may be as well to quote what an experienced naturalist sportsman says on the subject "I am forced to the conclusion that there is no difference of specific value between the two animals (Gyal and Gaur), such differences as do exist being principally, nor entirely, the result of domestication."

The Brow-antlered Deer or Thameng (*Cervus eldi*). It hails from Manipur and Burma, and is closely allied to the BARASINGHA of India. Like the latter it is savage when it has its horns, and mild, after it has shed them. THAMENGs have bred frequently in the Garden.

On the right side of the road is

9. The Sonebursa Enclosure,

so named after the Maharaja of Sonebursa, containing a number of interesting species of deer and antelopes, the most noticeable among them being—

The Japanese Deer (*Cervus sika*) from Japan. It is a hardy animal and breeds freely in captivity.

The Black Buck or Indian Antelope (*Antilope cervicapra*). *H. Harna, B. Kalsaur.* It is a most characteristic animal of the plains of

India, found from the foot of the Himalayas to the extreme south of the Peninsula, with the exception of the Malabar coast, and the Eastern Ghats; rare in Lower Bengal, most abundant in the United Provinces, Central India, and the Deccan.

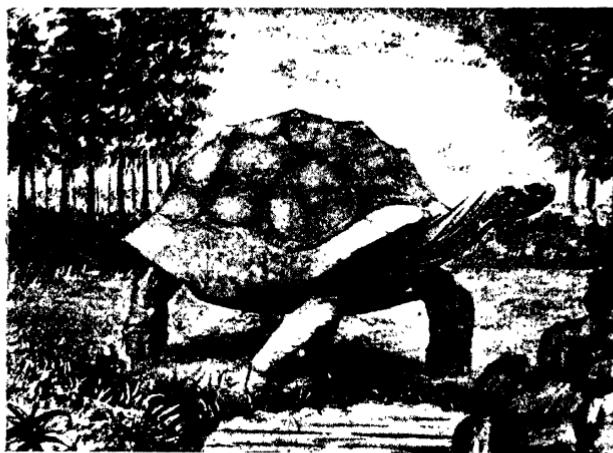
The Four-horned Antelope (*Tetraceros quadricornis*). *H. Chousingha.* This is like the preceding a characteristic species of the Indian fauna, but it does not occur anywhere in Lower Bengal or Assam.

The Emu (*Dromacus nova-hollandiae*).—It comes from Australia and is next to the Ostrich in size.

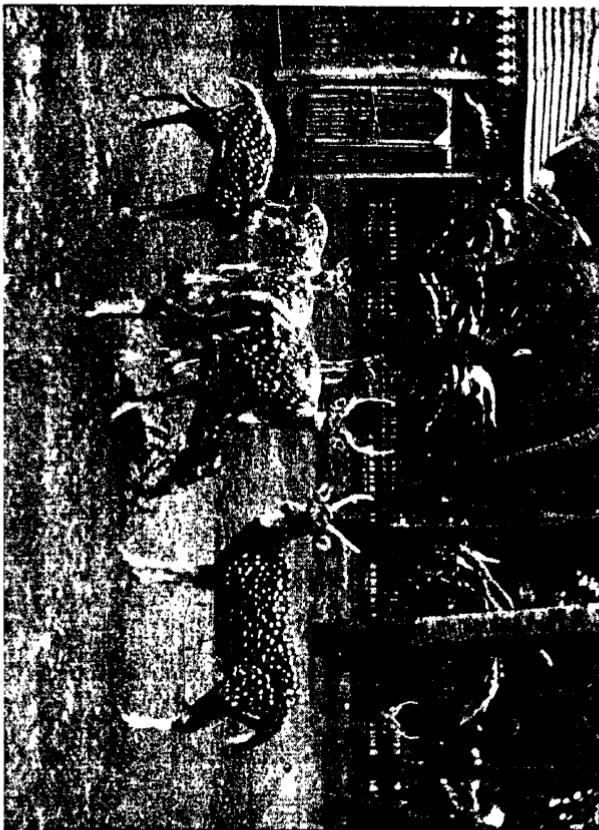
The Llama :—There are four distinct recognised forms of the Llama—(1) Llama (*Lama glama*) ; (2) Huanaco (*Lama huanaos*) ; (3) Vicuna (*Lama vicugna*) ; (4) Alpaca.

The LLAMAS are natives of South America. These curious animals are the representatives of the camels of the Old World and are very useful for their wool and hides. They are rather of an irritable temper; and when irritated they bite, kick, eject the contents of the stomach, and spit.

The Land Tortoise (*Testudo elephantina*).—In this enclosure will be found, grazing with the deer, a few gigantic Land Tortoises about 4



THE LAND TORTOISE.



feet in length, and half as much in height, and probably over 100 years old. They are found in the Aldabra and Galapagos Islands, and are probably on the verge of extinction. They are herbivorous animals—have no teeth, which are replaced by horny plates forming a strong cutting bill. When they are frightened they can withdraw the head, and take shelter under their heavy shields.

Continuing his journey alongside the paddocks the visitor will find, on his left, another spacious paddock, shaded by a grove of cocoanut trees, occupied by —

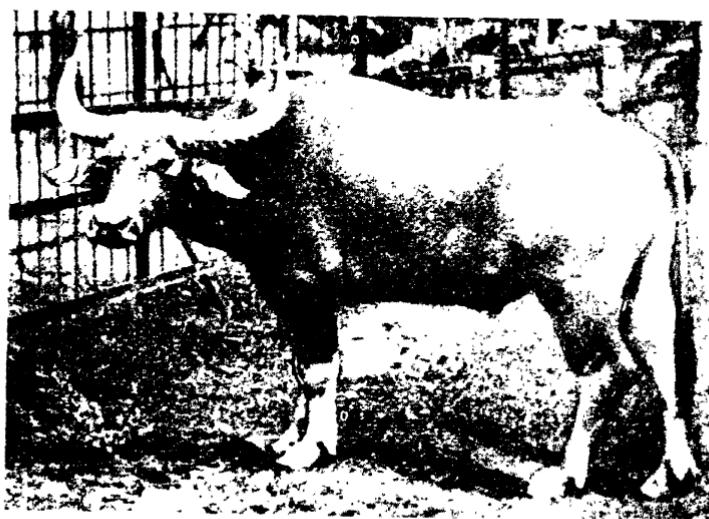
The Spotted Deer or Cheetul (*Cervus axis*). This well-known species is distributed over Central and Southern India, and along the outer ranges of the Sub-Himalayan and Terai regions; abundant in the Sunderbunds, but does not extend further east, nor is it found in the Punjab. **The Spotted Deer** breeds very freely in the Garden.



HYBRIDS BETWEEN THE SPOTTED AND THE HOG DEER.

The Wild Buffalo (*Bos bubalis*). *H. Jangli Bhami*. *B. Mairs*. This species is found in the plains of the Brahmaputra and the Ganges, from

Eastern Assam to Tirhoot, the coast of Orissa, and Midnapur, and the Central Provinces.



THE WILD BANTING.

The Banting or the Sondaic Ox (*Bos sondanicus*). This beautiful bovine occurs in its wild state in Burma, the Malayan Peninsula, Sumatra and Borneo. A cow Banting is a very docile animal, but the temper of the bull cannot be trusted. BANTINGS breed freely in the Garden.

On the other side of the lane is

9 (a). The Sambur Enclosure.

Inhabited by the **Sambur Deer** (*Cervus aristotelis*) which is distributed over a great part of India from the Himalayas to the extreme south of the Peninsula. It is a denizen of the deep forest.

10. The Pig Enclosure.

The last enclosure of the range of paddocks has been allotted to Pigs, of which there are two species now living in the Garden.



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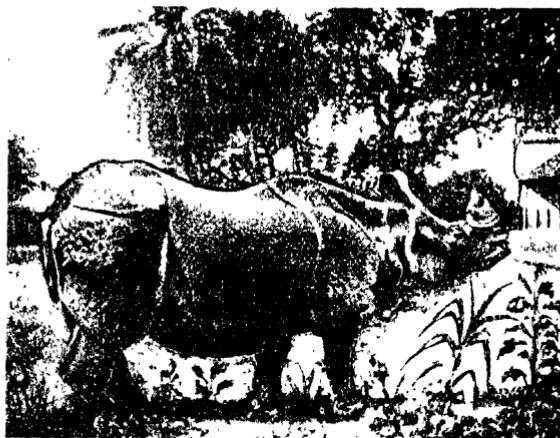
The Wild Pig of India (*Sus crassus*) *H. Sus*, *Barkha*, which is closely allied to the wild boar of Europe, is found all over India, Burma, and the Tenasserim Provinces, extending to the islands of the Malay Archipelago.

The Andaman Pig (*Sus andamanensis*), supposed to be only a dwarf race of the wild Pig of India, is found in the Andaman Islands.

Leaving the Pigs the visitor will find further on to the south:

II. The Rhinoceros Enclosure.

Several varieties of the Rhinoceros have been exhibited in the Garden from time to time. The present occupant of the enclosure is an Indian Rhinoceros (*R. unicornis*) presented by the Nepal Durbar to Lord Curzon and by him to the Garden.



THE INDIAN RHINOCEROS

Rhinoceroses have three toes on each foot, and each toe terminates in a small hoof-like nail: their general form is heavy and large, and the legs short and stout: the dermal horns are situated above the snout and grow throughout the animal's life, and if lost are reproduced. They have two inguinal mammae.

The Indian Rhinoceros (*R. unicornis*). *H. Gunda, B. Gadar.*

At present the Indian Rhinoceros is mostly confined to the great forests of the Dooars, to the east of the Teesta, Nepal Terai, and Assam. Formerly it had a wider range of distribution. The animal has one horn on the nose. It is a huge unwieldy creature, covered with a thick skin which lies in massive folds on the different parts of its body. It is herbivorous and inoffensive in the natural state unless provoked, and appears to enjoy mud and ooze.

In the year 1889 a young hybrid (between *R. unicornis* and *R. Sumatrensis*) was born in the garden, and is the second recorded instance of the Rhinoceros bred in captivity.

13. The Elephant Stand.

Close to the Rhinoceros enclosure, the visitor will occasionally find under the big tree a young Indian Elephant (*Elephas indicus*). *H. & B. Hathi, S. Gaja.* The Elephant is a well-known animal all over India and is found in the Terai range of the Himalayas, Assam, Cachar, Burma, Siam, and the Malayan Peninsula. The Indian Elephant is much smaller and of better



THE INDIAN ELEPHANT.

temper than the African variety. Children are permitted to ride the elephant. Application for tickets should be made at the entrance to the Garden. Close by are

12. The Cranes' Paddocks

Containing the following birds : -

The Cape-crowned Crane (*Balcaria chrysopelargus*). This is a beautiful bird from South Africa. It has obtained its name from the tuft of velvety crested feather on the head, which looks like a glossy cap.



THE CAPE-CROWNED CRANE.

The Balearic Crane (*Balcaria parvirostris*). Hab. West Africa.

The Stanley Crane (*Anthropoides paradiseus*). Hab. South Africa, east to Mashona-land, west to great Namaqualand and Damaraland.

The Manchurian Crane (*Grus viridicollis*).

The Sarus Crane (*Grus antigone*).

The Demoiselle Crane (*Grus virgo*). *H. Kankara.*

The Asiatic Common Crane (*Grus leucocephala*). *H. Care-kw.*

The Common Crane (*Grus communis*).

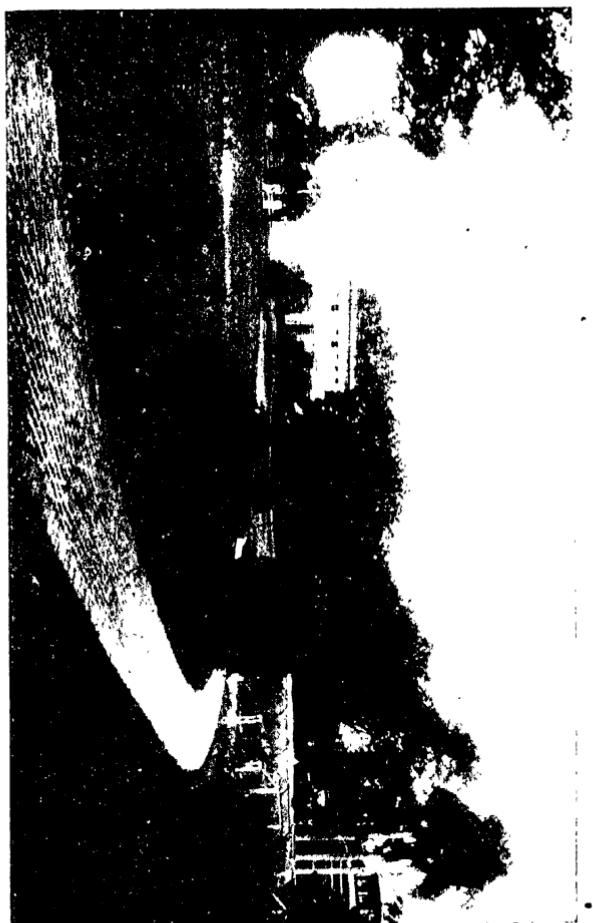
From the south east corner of these enclosures a narrow path leads to

14. The Gubbay House

built to commemorate the name of the late Mr. Elias Gubbay, and devoted to apes and monkeys. It is an oblong brick built edifice measuring 50 feet long, by 30 feet broad, by 22 feet high, with an arched roof. The doors and fanlights are all made of thick plate glass, so that while light and air are freely admitted, draught and cold can be effectually excluded, and the temperature regulated. The cages, each measuring 7 feet 6 inches long by 5 feet 6 inches broad, by 4 feet high, are fixed in separate blocks against the walls, an arrangement which, although involving unnecessary waste of space, has been allowed to continue, in consideration of the fact that it does not interfere with the health and comforts of the inmates. It was remodelled, however, in the year 1906-07.

The Orang-utan (*Simia satyrus*). *H. Jauzel la-sundu. B. Ban-munay.* Hab. Borneo and Sumatra.

The man-like ape of Borneo and Sumatra differs much in appearance from the other members of the same group. The name ORANG-UTAN is derived from the Malayan word signifying "Man-of-the-wood". An adult Orang has reddish-hued hair all over the body, a tall elevated forehead, and a flat face with an oval contour. It stands about 4 feet 4 inches in height, has a pair of long arms, which almost touch the ground when it is in an upright position. The legs are very short and thick, and they are twisted in such a manner that the knees are turned outwards, and the feet consequently set very obliquely to the line of the legs. Owing to this peculiar structure of the legs



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and feet it walks on the outer side of its feet, the soles are turned inwards and almost face one another. This arrangement of the feet is admirably suited for climbing trees, but ill suited for walking rapidly on the ground. There is a kind of collar round its neck formed of folds of skin containing an internal cavity communicating with the upper part of the wind pipe. The sloping and stooping shoulders and prominent abdomen greatly detract from the appearance of this animal.

The Orang in captivity is very affectionate and docile.

The Hoolock Gibbon (*Hoolock hoolock*). *B. Utul.* It is the smallest of the man-like apes. With rare exceptions, it is a very gentle creature and when kindly treated, becomes very tame and even affectionate. Hab. Assam, Burma, etc.

The Common Marmoset (*Callithrix jacchus*). This is a beautiful little creature popularly known as the MARMOSET, many of which are smaller than the squirrel. Its distinguishing features are its long whitish grey hair on the side of the head which conceals the ears, a long bushy ringed tail, eyes large, and nose flat. Hab. Brazil.

The Lemur. There are several species of the Lemur in the Garden collection. The true Lemurs are confined to Madagascar. Although nocturnal in habits in their wild state, they have, it appears, adapted themselves to their changed circumstances, and remain generally awake and lively during the day.

The Ring-tailed Lemur (*Lemur catta*) is easily recognised as it resembles a small fox. It is of an ashy grey colour darker on the back, white on the under parts, and its distinctive features are the alternate rings of black and white on the tail, from which it derives its name.

The Chacma Baboon (*Cynocephalus porcarius*). This is a very powerful monkey. The distinctive feature of a Chacma is its large dark muzzle, and the absence of a tuft from the tail. The colour of its body is uniformly dark brown, mixed with a shade of light yellow or greyish black. It is found in all the mountain ranges of the Cape district of West and South Africa.

The Mandrill (*Cynocephalus mormon*) is a brute of tremendous power and ferocity. It resembles the other Baboon in general appearance,

but its leading features are its peak-shaped crest on the crown of the head, and the swellings on the face ornamented with brilliant coloration in the adult state. Hab. West Africa.



THE MANDRILL.

The Drill (*Cynocephalus leucophaeus*). The Drill resembles the Mandrill, but lacks its brilliancy of colouring. The general colour of the fur is brown, and the bare part of the face is entirely black. It is found in West Africa.

Emerging from the Gubbay House by the east gate and crossing the road, the visitor finds by the side of the Serpentine tank

15. The Smaller Duck House for the accommodation of the aquatic birds.

It contains the following birds :-

Flamingoes, Herons, Coots, Muscovy Ducks, Indian Snake Birds, Egrets, Adjutants, and Storks.

The Flamingoes (*Phoenicopterus antiquorum*).

It can at once be distinguished by its long neck and legs, and bent-down bill. It is found in shallow water and feeds on small fish and inhabits Europe, North Africa, and most parts of Asia and India.

The Purple Coot (*Porphyrio Poliocephalus*). *H. Kaim, B. Karem*, is a common bird found throughout India and Ceylon.

The Water Coot (*Gallinula chloropus*) looks like the Purple Coot but its plumage is dull black instead of bluish, the male bird having a large red crest.

The Large White Egret (*Ardea alba*). *H. Malang Baglas, B. Dhan bak or Bagla* is found throughout India and Ceylon.

16. The Murshidabad House.

Close by the "Old Boat House" is the Murshidabad House named in honour of its donor, H. H. the Nawab Bahadur of Murshidabad. It has undergone thorough renovation in the last four or five years. Several valuable specimens of birds are kept here, viz:--

The Bird of Paradise. This magnificent bird is a near ally of the crow. There are nearly 50 species of Birds of Paradise, of which 18 are well-known. Most of these birds are confined to the wooded hills of the Malay Archipelago, New Guinea, and the adjacent Papuan Islands; and one genus is found in the Malaccas, while three genera extend to North Australia. The adult male birds of all the species are characterised by an extraordinary development of plumage quite unparalleled in any other group of birds; but the females are generally plain and ordinary-looking birds, being mostly of a uniform chocolate colour.

The BIRDS OF PARADISE, through exquisite beauty of form and color, and strange development of plumage, have always excited the wonder and admiration of the most civilized and intellectual section of mankind, and furnished to the poetic philosopher inexhaustible materials for the speculative study of nature.

The collection contains the following specimens :—

The Greater Bird of Paradise (*Paradisea apoda*)

The Lesser Bird of Paradise (*Paradisea minor*)

The Red Bird of Paradise (*Uranornis rubra*)

The Twelve-wired Bird of Paradise (*Scelucides niger*.)

The Rifle-bird (*Ptilorhynchus paradiseus*)

The Doves and Pigeons are placed in three different houses, viz.,—the Murshidabad House, the Sarnomoyi House, and the Jheend House.

The Doves and Pigeons belong to a very large family, *Columbidae*. Over 500 known species are found all over the world, but the most numerous amongst them are those inhabiting Australia and the Oceanic region: many live in America but not of very varied forms: a few in Europe, and temperate Asia. They abound also in India.

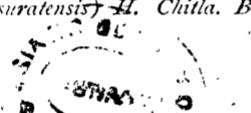
All Pigeons are monogamous in their habits; and the pair show considerable devotion to each other; both sexes assist in making the nest, incubating the eggs, and feeding the young. They do not generally lay more than two eggs at a time.

The following varieties are interspersed in the various Houses :—

The Indian Blue Rock-Pigeon (*Columba intermedia*).

H. Kabutar. B. Gola Paire.

The Spotted Dove (*Turtur suratensis*) *H. Chilla. B. Ghugu.*



- 'The Common Ring Dove (*Turtur risorius*).
- 'The Crested Pigeon (*Ocyphaps lophotes*).
- 'The Bronze-winged Pigeon (*Phaps chalcoptera*).
- 'The Wonga Wonga Pigeon (*Leucosarcia picta*).
- 'The Blood-breasted Pigeon (*Phlogonias cruentata*).
- 'The Imperial Green Pigeon (*Carpodectes antoniae*) *H. Sona Kabutar, Burra Harial.*
- The Bengal Green Pigeon (*Crocosoma phoenicopterus*)
H. & R. Harial.
- The Orange-breasted Green Pigeon (*Osmotreron bimaculata*).
- The Kokla Green Pigeon (*Sphenocercus sphenurus*)
H. Kokla.
- The Nicobar Pigeon (*Caloenas nicobarica*).

17. The Schwendler Monument.

Coming out by the Western door, the visitor will find set up on his left, in the middle of the road, a monument in memory of Mr. L. Schwendler, who, for many years, was intimately connected with the Garden. A little further up, on the right hand side is

18. The Sarnomyi House.

This house has been erected at the cost of Maharaja Manindra Chandra Nandy, the worthy nephew and successor of the late Maharani Sarnomoyi of Cossimbazar.

On the three sides of the main building there are three lofty wire-netting Aviaries (the Eastern Aviary, the Western Aviary, and the Central Aviary), which contain bushes and trees, and afford practically a natural home for the birds for which they are.

intended. The birds live here without any restraint, with ample opportunities for exercise, and some of them breed freely. The following are the most important and prominent specimens in this house :—

Parrots (Order Psittaci.)

PARROTS form a large group of about 500 species which present well-marked characters. Their most obvious external characters are displayed by their feet and bills. In the feet, the first and the fourth toes are permanently turned backwards, the second and third forwards. The whole foot is divided into two digits, "zygodactylous". Bill, very short, strongly hooked with a cere at the base. Tongue, thick and fleshy.'

Parrots are found all round the world, chiefly in warm climates, especially in tropical America, whence come the **Macaws** (*ara*) and **Amazons** (*Chrysitis*), and in the Australian regions, where **Lories** (*Lorina*) and the **crested Cockatoos** (*Cacatua*) are found. A few species are found in temperate climates in New Zealand, North America, and South America.

For the most part Parrots are thoroughly arboreal and climbing birds, and are essentially characteristic of the tropical and sub-tropical regions of the globe.

All Parrots make their nests in the hollows of trees, and usually lay two or more white eggs. These birds are very intelligent, and usually of gorgeous plumage.

The following species will be found :—

Family Cacatuinæ.

(Cockatoos).

The Rose-crested Cockatoo (*Cacatua moluccensis*).

The Great Sulphur-crested Cockatoo (*Cacatua galerita*).

The Great White-crested Cockatoo (*Cacatua cristata*).

The Roseate Cockatoo (*Cacatua roseicapilla*).

The Bare-eyed Cockatoo (*Cacatua gymnoptis*).

The Great Black Cockatoo (*Microglossa aterrima*).

All of them come from the Australian region, and the Philippine and Sulu Islands, and have erect crests on the head.

Family Palæornithidæ.

(Parrakeets and Lories).

The Red-cheeked Parrakeet (*Palwornis erythrogenys*).
The Red-breasted Parrakeet (*Palwornis fasciatus*) *H.* &
B. Kajla.
The Blue-winged Parrakeet (*Palwornis columboides*).
The Malayan Parrakeet (*Palwornis longicauda*).
The Red-winged Parrakeet (*Aprosmictus erythropterus*).
The Ring-necked Parrakeet (*Palwornis torquatus*).—
B. Tia. (very abundant in India).
The Rose-band Parrakeet (*Palwornis supatrius*) *H. Rai*
Suga. B. Chandana.
The Indian Lorikeet (*Loriculus vernalis*).
The Undulated Grass Parrakeet (*Melopsittacus undulatus*).
The Rose-faced Love-bird (*Agapornis roseicollis*).
The Purple-capped Lory (*Lorius domicella*).
The Chattering Lory (*Lorius garrulus*).
The Blue-breasted Lory (*Eos indica*).

Family Psittacidae.

(Macaws).

The Greater Vasa Parrot (*Coracopsis vasa*).
The Grey Parrot (*Psittacus erythacus*).
The Blue and Yellow Macaw (*Ara ararauna*).
The Red and Yellow Macaw (*Ara chloroptera*).
The Hyacinthine Macaw (*Ara hyacinthina*).

The Eastern Aviary.

The Victoria Crowned Pigeon (*Goura victoria*).

The Common Crowned Pigeon (*Goura coronata*).

These birds are found in New Guinea and the adjacent islands. They freely breed in the garden.

The Central Aviary.

(*Hornbills*).

This group of birds can be distinguished at first sight by the enormous size of their bills which are further, in most of the species, increased by a casque or protuberance placed at the base of the bill on the culmen. The eyes are protected by strong eyelashes (modified feathers); and the plumage is plain but shows a strong contrast black and white; and the presence of the eyelashes gives them a striking appearance.

Hornbills are a well-marked family (*Bucerotidae*) found nearly throughout the Ethiopian and Oriental regions and occurring also in the Papuan sub-region. They are specially remarkable for their nidification—a hole in a tree is selected, and there the female, usually with the aid of the male, encloses herself and shuts up the orifice by means of mud and her own droppings, with the exception of a narrow vertical slit for ingress of fresh air and food. She is thus enclosed before she begins to lay eggs and apparently remains in the hole till her young ones are fledged, being fed all the time by the male through the slit left in the enclosing wall.

There are about 65 species of the **Tree Hornbills**.

The *Bucerotidae* are found in Africa,--south of the Sahara, and in the south-east Asia to New Guinea, in wooded country.

The Ground Hornbills (*Bucorvus*) are confined to Africa.

Among the Tree Hornbills the most familiar in India is—

The Grey Hornbill (*Ocypterus birostris.*) *B. Dhanes.*

The Rhinoceros Hornbill (*Buceros rhinoceros*) is found in the Malayan Peninsula, Sumatra, and Borneo.

The Indo-Burmese Hornbill (*Anthracoceros albirostris*) is found in India, Burmah, the Malayan Peninsula, and Borneo.

The Wreathed Hornbill (*Rhytidoceros undulatus.*) is found in the hill ranges of Sylhet, and Cachar, and extends through the Malayan Peninsula to Sumatra and Java.

The Wrinkled-bill Hornbill (*Cranioleuca corrugatus.*) is found in Malacca, Sumatra, and Borneo.

The Western Aviary.

In this aviary are exhibited several hundreds of small birds, such as, FINCHES, MUNIAHS, JAVA SPARROWS, ROBINS, and BULBULS. They enjoy the ripe fruits of various trees (*Papaya*, *Plantain*, etc.) planted in the aviary, and feed on the seeds of grasses.

They breed here freely and in the breeding season it is very interesting to observe them build their nests.

Leaving the Sarnomoyi House and crossing the main road the visitor will find

19. The Jotindra Mohan Tagore Library.

(Not open to the public).

For this house the Garden authorities are indebted to the late Maharaja Sir Jotindra Mohan Tagore, K.C.I.E., of Calcutta. The two medallions in front of the Library are those of Sir George King, K.C.I.E., F.R.S. and Dr. D. D. Cunningham, C.I.E., F.R.S.—former Presidents of the Zoo. Passing the Library Room the visitor will come to

20. The Mullick House

named after Raja Rajendra Nath Mullick of Chorbagan, Calcutta, an enthusiastic animal fancier of his time, who maintained his own private menagerie long before the "Zoo" came into existence. It is a round brick-built structure with six radiating outer wire-netting cages, each having a small fresh water tank. Amongst others the following are the chief inmates of this house :—

The Cat Bear or Panda (*Ailurus fulgens*). This is a beautiful animal about the size of a cat. Legs short and stout, tail long and bushy, colour yellowish, fur of abdomen and legs generally darker, face and lower lip white. It inhabits the south-eastern Himalayas at about the elevation of 7000 to 8000 feet, Nepal and Assam.

The Common Otter (*Lutra vulgaris*). is common in Bengal and found all over the world. The European Otters are larger than the Asiatic varieties. Otters are very playful and active. They overtake fishes in water and bring their prey ashore to eat them.

The Clawless Otter (*Lutra leptonyx*). In this variety the claws are extremely small and rudimentary, and the great toes on all the feet are considerably larger than the others ; found in most parts of the oriental region.

The Coypu Rat (*Myopotamus coypu*). It is a large rodent of South America, generally found near rivers and lakes. It delights in water and can swim well.

The Crab-eating Mongoose. (*Herpestes urva*).

The Common Indian Mongoose (*Herpestes mungo*) *H. Neela* ; *B. Reji, New*, is to be found throughout India ; it is very clever, intelligent, easily tamed and is an expert snake-killer. It is very fond of eggs, and destroys large numbers of reptile's eggs. Thus it is very useful and requires protection. It is carnivorous in habits, and is found in Africa and Asia.

A little further up from the Mullick House is

1 RE: SUBJECT: LEE JAHN (BBL KUTT HULL HOUSE)





21. The Joy Gobind Law Laboratory.

(*Not open to the Public*).

This building owes its origin to the munificence of the late Babu Joy Gobind Law, C.I.E., of Calcutta, who, during the infancy of this institution, and when it was struggling hard for its existence, helped it not only by contribution towards its funds, but also by what was no less valuable, namely, his sound advice. In fact, he was one of the oldest counsellors of the Managing Committee of the Garden.

A few paces northward of the Laboratory and just on the main road is

22. The Reptile House.

The first attempt at keeping Reptiles in captivity under such conditions as might render it possible to observe their habits was made in 1878, when a Pit (to which allusion has been made already) containing a rockery in it was built. This Snake-Pit having proved inadequate for the purpose, the present imposing house was erected and opened in 1892, for the better display of the collection.

On entering the house the visitor will observe on his left a plate glass tank filled with salt water, for the display of Sea snakes. There is a series of large fixed glass cases, which occupy the three sides of the interior, and contain representatives of the various species of both poisonous and non-poisonous snakes. On the eastern side of the house will also be seen a number of smaller glass cases appropriated to smaller snakes and lizards. In the centre of the house there are two ornamental basins, which are fed by clean pipe water, and were for many years devoted to the crocodiles and alligators but are now tenanted by water lizards, turtles and tortoises.

The following specimens are to be found in this House:—

The Python or Rock Snake (*Python molurus*).

The Reticulated Python (*P. reticulatus*) from Malaya.

Pythons are non-poisonous snakes. They are of great size and strength, seizing and killing their prey instantaneously and painlessly. In captivity, they are very fond of water, and are generally fed with freshly-killed ducks and rabbits.

The Cobra (*Naja naja*). It is a well-known snake of India. Although in appearance very fine-looking, it is deadly poisonous and of a very irritable temper. Before using its deadly fangs it erects its body with hood expanded on which the characteristic marks, popularly believed by the Hindus to have been impressed there by the feet of Vishnu, are visible.

The Hamadryad or Snake-eating Cobra (*Naja Bungarus*). This magnificent creature attains a considerable size. When provoked it erects 2 to 3 feet and expands its hood. The Indian snake-charmers are very loathe to handle this snake which as its name indicates is a cannibal in its habits.

The Russel's Viper (*Daboia russelii*) is a deadly poisonous snake, and may be ranked next to the Cobra. Its peculiarity is that instead of laying eggs, as other snakes do, it hatches them within the body, and the young ones come out in an active state.

The Banded Krait (*Bungarus fasciatus*) is a very common snake of India. It is a beautiful-looking snake with black and yellow stripes completely encircling the body and the tail. It is very poisonous, but as its fangs are much smaller than those of the Cobra and the Viper, its bite is not always so fatal and effective as theirs.

There are no sure methods of distinguishing the poisonous snakes. Mere external appearance or character, without a thorough knowledge of their various forms and careful examination of their dentition, helps us but little. It is a fact that certain groups of Snakes, such as the members of the Viper family are all poisonous, while in other groups such as the typical snakes, some species may be poisonous while others non-poisonous. Almost all the harmless snakes have six rows of teeth, four in the upper and two in the lower jaw. In some snakes all the teeth are equal (in others they are irregular) and are directed backwards, thus affording a formidable obstacle to any resistance on the part of the prey when once seized.

Mouth and teeth of poisonous Snakes.

There are two slightly curved fangs on each side of the upper jaw; sometimes one or two rudimentary teeth may be found behind the fangs, and the fangs contain a perfect canal or groove for the conveyance of the poison to the bitten

tissue. The fangs are erectile and enveloped in a fold of mucous membrane, and occupy the same place as the canine or cutting teeth of dogs and other **carnivora.** Poisonous snakes possess only four rows of teeth, two in the upper jaw and two in the lower with poison glands which are ultra developments of the salivary gland, and are provided with the muscles necessary to force the secretion of the glands into the fangs when they bite.

Reptiles are commonly known as "cold-blooded" creatures. They are not provided with heat saving arrangements, like skin, fat, fur or feathers as in the case of warm-blooded animals. The temperature of the body rises and falls and comes to the same level as the surrounding air or water.

The majority of snakes lay eggs, oblong in form, enclosed in a soft leathery sheath, which are hatched by natural heat; but pythons incubate their eggs. On the other hand, in certain cases of both fresh and sea water snakes, the eggs are retained within the body of the mother until they are hatched, and the young ones come out in an active state. Snakes have no eyelids, but the eyes are covered instead with a transparent disc which peels off when they change their skin.

Emerging from the Reptile House the visitor should follow the path to the back and on the right of the building which leads to

23. The Antelope House.

Before the erection of this house, such valuable animals as the Semmerings and Beisa antelopes, hailing from the dry climates of Egypt and Abyssinia, and the ordinary Indian antelopes, inhabiting the high and dry table-land of North Western India, were exposed to conditions very unfavourable to their well-being, and consequently the death-rate amongst them was very high. The authorities of the Garden were fully aware of this draw back in their institution, but the want of space and requisite funds hampered them as regards making the necessary improvement in this direction. At last, in the year 1904, the Government of Lord Curzon gave them both and they have erected the present building.

In a Zoological Garden it is essential to follow, as far as circumstances permit, the accepted dictum that the more the

conditions the animals live under approximate to those of their natural habitats, the better is the prospect of their escaping disease. Judged from that point of view this elevated house, which is divided into six stalls, with the spacious lawn behind it, where the animals can take their open-air exercise by turns, is well adapted for the accommodation of such antelopes as come from regions drier than Lower Bengal. Some of the rarest species are exhibited here, viz:—

The Anoa (*Inset depressicornis*) which closely resembles a young buffalo and has short thick prismatic horns which are directed upwards. It is a native of the Celebes, and is a very hardy animal, and breeds freely in the Garden.

The Beatrix Antelope (*Oryx beatrix*) a beautiful black and white antelope from Arabia.

The White-tailed Gnu (*Connochaetes gnu*) a very shy, active and powerful animal. It has a heavy head with peculiarly bent horns, has long hair on the face. The mane and tail are like those of the horse. This animal comes from South Africa.



THE WHITE TAILED GNU.

The Duiker (*Cephalophus gratus*) coming from Africa.

The Four-horned Antelope (*Tetracerus quadricornis*) *H.* *Chousingha*,—found throughout India, but not in Lower Bengal; very docile in captivity.

The Markhor (*Capra megacephala*)—It does not stand this climate, but has been occasionally exhibited in the Garden.

After leaving the Antelope House, the visitor has to retrace his steps and return by the same path to the main drive. To the north he will find—

24. The Small Carnivora House.

This building was constructed in the year 1898, with a view to accommodate some of the rare and delicate felines. The following animals are exhibited in this house:—

The Leopard or Panther (*Panthera pardus*) *H.* *Kentwa Bagh*, *B.* *Chita Bagh*. It is a well-known animal of Bengal and occupies the third place in size in the cat family of the old world.

The Black Leopard is only a variety and not a distinct species. The black colour is deeper in some and lighter in others. The black leopards have the reputation of greater ferocity than their paler brethren. Leopards are found in South Asia, India generally, and some parts of Africa.

The Clouded Leopard (*Panthera nebulosa*). It is a beautiful-looking animal, smaller than the leopard. The characteristic features of this animal are its colour and marks. Colour earthy brown, lower part and inside the body whitish, markings of the body, irregular; the head and the limbs spotted; sides, elongated, having narrow pale-coloured patches on the body and the tail, ringed with black marks. Found—South-Eastern Himalayas, Assam, and the Malayan Peninsula.

The Striped Hyæna (*Hyæna striata*). *H.* *Lakar Bagha*, *Hondere*. Is a well-known animal of Lower Bengal, found throughout India, unknown in Ceylon; and also found in Northern Africa.

The Indian Wolf (*Canis pallipes*). *H.* *Bheriya*, *B.* *Nekreh*. When they are in packs, their ferocity is well-known. They are very common in the Indian peninsula, Behar, and Western Bengal.

The Fishing Cat (*Felis viverrina*). *H. Baraun* : *B. Ban Bival*. Larger than the ordinary domestic cat. It derives its name from its peculiar habit of catching fish and living on it to a great extent. Found in India, and Indo-China.

The Jackal (*Canis aureus*). *H. Gidur*; *B. Shual*. In the collection, there are several varieties of Jackals. They are well-known animals of Bengal. **The White Jackal** (Albino) and **The Black Jackal** (deeply pigmented) are freaks of nature. Jackals are found throughout India, Ceylon, Burma, South-eastern Europe, and North Africa.

The Dingo (*Canis dingo*) resembles the pariah dog of India. Found in the wild state in Australia.

The Fennec Fox (*Canis cerdo*) is a lovely little animal of North Africa, the smallest of all the fox tribe. It is about 15 inches long, and has very big ears and prominent eyes.

The Lynx or Caracal (*Felis lynx*) is a heavily-built cat, and is an inhabitant of the cold climate. Found in Upper Indus Valley, Ladakh, Tibet, north of the Himalayas, and north of the Alps.

The Side-striped Jackal (*Canis lateralis*).

The visitor should now turn to the left, and examine the three houses next in order, *viz.* the Smaller Antelope house, the Ostrich House, and the Birds of Prey Aviary.

25. The Smaller Antelope House.

The Indian Antelope (*Antelope cervicapra*). *H. Harrna*.

Found throughout India, with the exception of the Malabar coast, the Eastern Ghats, and Lower Bengal.

The Urial (*Ovis vignei*). It is an Asiatic wild sheep, known in the Punjab as Urial, and at Ladak as "Sha".

26. The Ostrich House.

The Ostrich (*Struthio camelus*). *H. Shamoroke*.

Ostriches are two-toed birds of gigantic size, and are incapable of flying. They have small bare heads, depressed bill, a long neck, and extremely muscular thighs. A good-sized bird stands about 7 feet in height. Young birds of both sexes resemble each other. The females at first have a mottled

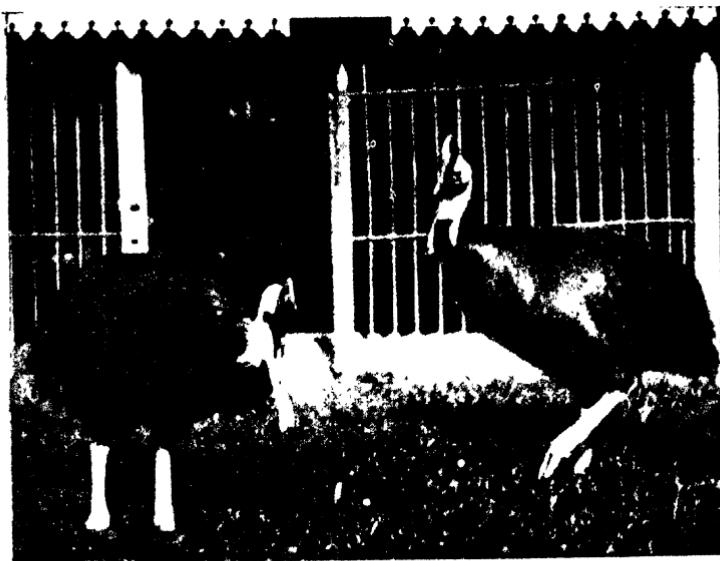


dark brown plumage with yellowish white quills and tail feathers. The colour in adult male birds changes into black and pure white respectively, whereas the females become uniformly dark grey. Found in the open sandy tracts of Africa and Arabia.

The Rhea—(*Rhea americana*), found in S. America.

The Common Cassowary (*Casuarius galvatus*)—found in the island of Ceram.

The Australian Cassowary (*Casuarius australis*)—found in Australia.



THE AUSTRALIAN CASSOWARY.

Emu—(*Dromaeus nova-hollandie*), found in Australia.

27. The Birds of Prey Aviary.

The Black Vulture (*Cathartes atratus*) from America.

The Cinereous Vulture (*Vulture monachus*), found in the Mediteranean region.

The Long-billed Vulture (*Gyps indicus*). *H. Gudh, B. Sakun.*
Found in India.

The Lammergeir (*Hypactes barbatus*). It is a link between eagles and vultures. It is a magnificent bearded bird, and is found in the mountainous regions of South Europe, North Africa, West and Central Asia; and is common in the Himalayas.

The Crested Hawk-Eagle (*Spizaetus cirrhatus*). *H. Guti-mar-baz*
found throughout India, ascending the Himalayas up to 7000 feet.

The Pallas's Sea-Eagle (*Haliactus leucoryphus*). *B. Korul-Bala.*
Common in Bengal, and North Western India.

The Indian Barn Owl (*Strix javanica*). *B. Lakhmi-penka.*
Found all over India and Ceylon.

The Brown Fish Owl (*Ketupa ceylonensis*). *B. Huttum-penka.*
Found all over India, Burma, and Ceylon.

The Brahminy Kite (*Haliastur indicus*). *B. Sunker-chil.* Found throughout India.

The Black-winged Kite (*Elanus caeruleus*). Found throughout India, and the greater part of Africa.

Following the main drive the visitor will next come to a small solitary house for Indian wild dogs. It is—

28. The Wild Dog House.

The Indian Wild Dog (*Cyon dukhunensis*). *H. Sona Kutta,*
Kuya. In appearance—it looks like a jackal, but not so compact. It is found in

the Himalayas, Assam forests, and Western Bengal. It has a peculiar smell, which is preceptible from a long distance.

Next is

29. The New Bear House.

For this house the Committee of management of this Garden are indebted to the present Nawab Bahadur of Dacca. It affords excellent accommodation for bears. Each pair has two rooms allotted to them, one the outer and the other, the inner or retiring den. The inner den is provided with a water tank, in which they bathe specially in hot weather. This house shelters a number of Himalayan bears (*Ursus torquatus*), Malayan bears (*Ursus malayanus*), and Sloth bears (*Melursus ursinus*). In another part of the Garden there is exhibited a large Brown bear.

The Himalayan Bear (*Ursus torquatus*) is found throughout the forest ranges of the Himalayas, Afganistan, Beluchistan, Eastern Assam, and Burma.

The Sloth Bear (*Melursus ursinus*). is found in the hill and jungly forests of India. It is a well-known animal of India and Ceylon. It can be recognised by its protrusible lips, white muzzle, white claws, and very long shaggy black hair.

All bears have the same general habits, and are fond of feeding on berries, fruit, roots, grubs, insects. They are exceedingly good climbers, and take great trouble to climb trees in search of honey.

Next comes

30. The Cooch-Behar House.

The old shed which used to contain the smaller carnivora was demolished and replaced by this shed of a more substantial

and durable character, which now accommodates the following animals :—

The Leopard Cat (*Felis bengalensis*).—This is a pretty little cat, and varies a good deal in different individuals both in size and shade of colour. It is commonly found in the Himalayas, Lower Bengal, Assam, Burma, the Malayan Peninsula, and the Western part of India.

The Large Indian Civet (*Urocyon zibetha*) *B. Gandhagohna*, is well known in India. It has a characteristic odour, due to some glands on the skin and perineum, which secret an oily substance, from which the well-known perfume is prepared, which gives the name to the group. There are generally six species of the true civets, five being Asiatic, and one African. They have nocturnal habits, and are solitary animals.

The Bear Cat or Binturong. (*Arctonyx binturong*) This resembles both a civet and a bear in general appearance. It is of a greyish black colour, with a shaggy coat and innumerable whiskers. Found in Assam, Arakan, and the Malayan Peninsula.

The Hog Badger (*Arctonyx collaris*) This resembles a pig. The prevailing colour of the body is grey, and the head white. It is generally found in Nepal, Assam, and Pegu.

By retracing his footsteps to the main road, and turning to the right, the visitor will find

31. The Buckland Enclosure.

This enclosure was built to commemorate the name of Mr. C. T. Buckland, I. C. S. who was the President of the Garden for many years, and contributed largely to its welfare at the time of its infancy. This enclosure, originally built for the Rhinoceros, is now inhabited by a young Hippopotamus.

The Hippopotamus (*Hippopotamus amphibius*). It is believed that in the Pliocene and the Pleistocene age several species were found in



THE HIPPOPOTAMUS.

India. It is a large thick-skinned animal like the other ungulata. It has a very big square head with a gigantic mouth. The eyes, ears, and nostrils, are situated rather towards the top, and at the same level, so that when floating in water it can see, hear, and breathe without exposing the body. It is entirely herbivorous and is common in the rivers of Africa.

32. The Tapir Enclosure.

The next enclosure on the right hand side contains a very pretty sight - a pair of Malayan Tapirs (*Tapirus indicus*) and their striped baby, making a very picturesque family group when stand-



THE MALAYAN TAPIR.

ing up together. Externally the Tapir much resembles a pig, but anatomically it is related to the rhinoceros on the one hand, and to the horse on the other. It is rather shy and very mild in temper. It is a herbivorous animal, and is very fond of water.

From here the visitor is able to take a view of the big lake where a large number of aquatic birds are exhibited. About 5 years ago it was enclosed with wire-netting for their reception.

It is a real paradise to them, as they live here without any restraint, just as they do in their natural habitat. Here in the morning, the Brahminy ducks (the *chakrabak* of the Indian classical writers), may be seen by scores, preening their feathers, or basking in the sun, while the swans and geese are yet enjoying their early bath. Saras cranes may often be seen dancing with ludicrous gyrations, showing their vanity or love of demonstration. Besides the swans, geese, and cranes on land and water, the trees



THE BURCHELL'S ZEBRA.

of the enclosure, especially on the island, have their occupants. Hundreds of night herons resort to them for nesting purposes. Moreover, egrets, storks, Indian snake-birds, etc. live here and some of them breed freely.

Walking round the flower bed the visitor will come to

33. The Ezra House,

built at the expense of the late Mr. David Ezra for the accommodation of the splendid pair of Giraffes which he presented

to the Garden in 1877. It is now tenanted by a pair of Zebras, 3 wild Asses, and 1 Kiang. The Zebra is a well-marked and remarkably docile animal.

There are several varieties of the Zebra: The Mountain Zebra (*Equus Zebra*), Burchell's Zebra (*E. Burchelli*), Grant's Zebra, (*E. Granti*), Chapman's Zebra (*E. Chapmani*), and Grey's Zebra (*E. Grisea*).

In the Garden collection there is only a pair of Burchell's Zebra.

The Burchell's Zebra (*Equus burchelli*) is a beautiful creature standing about 4 feet high. The general colour of the body is pale yellow; and the stripes are brownish black, and there are fainter and narrower stripes in the interspace between the broad stripes. It belongs to South Africa.

The Wild Ass (*Equus onager*) Found in the Punjab, Sindh, Cutch, Rajputana, and in Afghanistan, and from Beluchistan to Persia.

The Kiang (*E. Kiang*) is larger than the wild ass; found in the plains of Tibet.

On turning to the east from the Ezra House the visitor will at once find, at the end of the straight road, a semi-circular brick building. It is the most important and attractive house in the Garden known as

34. The Burdwan House,

for the accommodation of the larger carnivorous animals. It was built at the expense of the Burdwan Raj Estate. It is 250 ft. long by 32 ft. wide, and divided into 11 double-chambered dens—outer or *exhibition*, inner or *retiring*. Each den communicates with the other, and the sliding doors are worked from the top. It is a most up-to-date house with a broad verandah which runs along the southern front of the house. The floor of the house is 3 feet in height and was recently fitted with wooden platforms. But the most conspicuous improvement which has lately been carried out in this house is a new open-air enclosure at the back of it, the cost of which was met from the fund provided by the late Maharaja Bahadur Surya Kanta Acharya Chowdhury of Mymensingh.

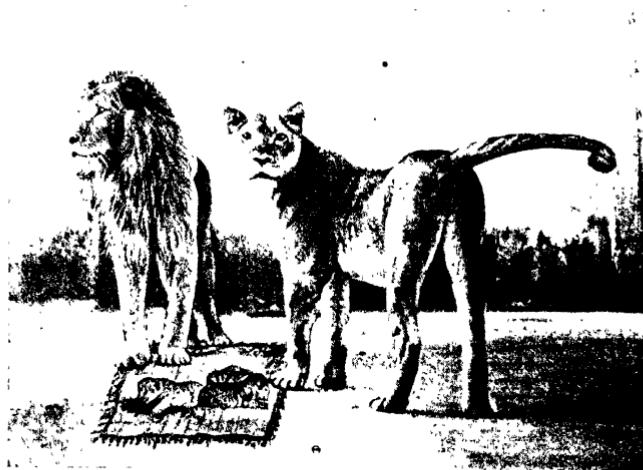




The house contains some very interesting selections of large carnivorous animals, the foremost among them being a pair of docile and good-tempered lions belonging to the celebrated Kordofan race, which attains to a larger size than most races of African lions. Besides this pair, there are two other pairs of lions from Africa, a pair of lively and amusing lion cubs born in the Garden, and the ferocious and man-eating tiger from the Gaya District in Bengal.

The animals are fed at 5 P.M. every day.

The Lion (*Ursus leo*). It is a most magnificent animal, far more striking in appearance than any of the cat tribe, and indeed of all the carnivorous

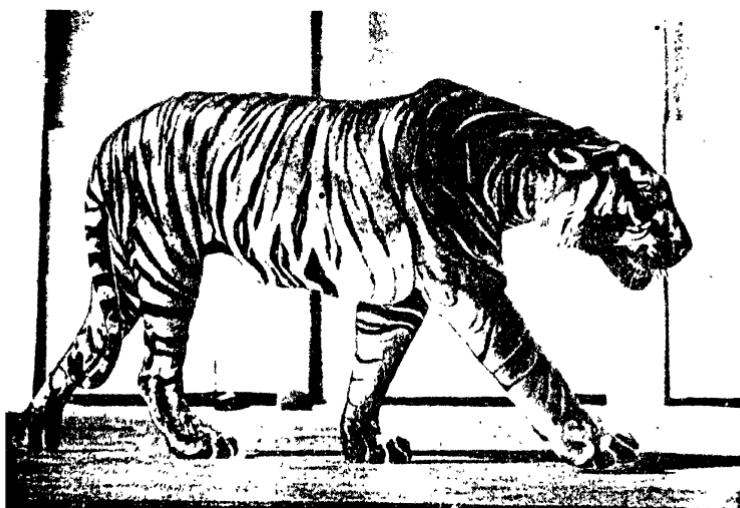


THE LION.

animals. Its most notable feature is its splendid mane, decorating the head and chest of the male, its well-shaped body and its tufted tail. Lions vary a great deal in colour and size. The lion is a true cat; it has retractile

claws and the circular aperture for the pupil of the eyes. Lions are found in Africa, and South-west Asia. Indian Lions are now only found in the Gir forest in Kattiwar. Lions stand captivity well, and since last year they have been breeding freely in the Garden.

The Tiger (*Felis tigris*). It is also a true cat, and entirely an Asiatic animal, the largest of the living cat family. It is the most powerful and the strongest of all the carnivorous animals. It is distributed throughout

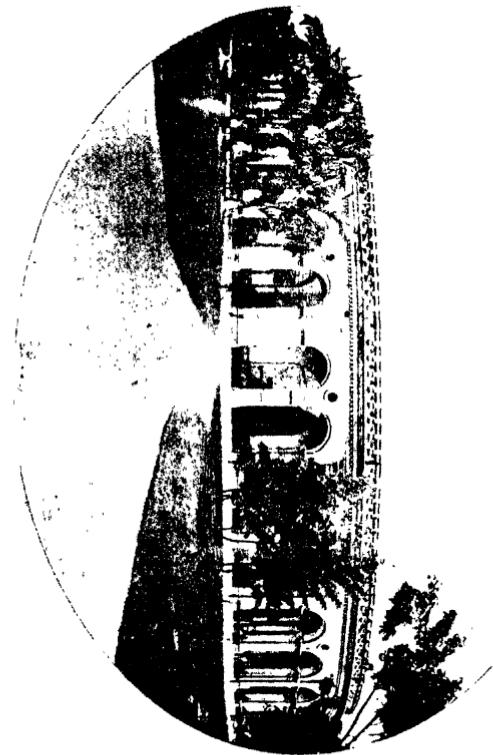


THE TIGER

India, Burma, the Malayan Peninsula, South Eastern Asia, Java, Sumatra, China, Northern Persia, Turkistan, Central Asia, and Southern Siberia. Tigers are subjected to great variation in form and colour.

The Jaguar (*Felis onca*). It is a South American animal. It clearly resembles the Leopard and is a perfectly arboreal animal.

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On the east side of the Burdwan House is

35. The Old Mandrill House.

The present inmates of this house are a beautiful full-grown Mandrill and an Anubis Baboon.

36. The Superintendent's Quarters.

The building facing the lake is occupied by the Superintendent of the Garden.

37. The Abdul Ghani House

now occupied by the Brown Bear (*Ursus arctos*) which is commonly found in North and Central Asia extending all over Europe.

Coming down from the Bear House, and following the path leading to the east, and crossing the Serpentine Lake by the ornamental iron bridge, the visitor will find

38. The Jhind House

which has been devoted to the several kinds of seed-eating birds, such as, Pheasants, Doves, Pigeons, Cardinals, and Grass-parrakeets. Past the Jhind house in front of the undulated lawn the steep road bifurcates. Taking the left-hand road the visitor will come to one of the most delightful places in the garden.

39. The Duck Pond.

It is a large wire-netting aviary with a large and high covered enclosure, which was enlarged and improved a few years ago. The birds are evidently quite at home here, as several of them, including the Scarlet Ibis from Brazil, breed

every year. There is always a specimen or two of the rare Pink-headed Duck, which, though an Indian species, is never seen in large numbers. No visitor can miss the Stone-plover, which, with unfailing regularity follows the footsteps of every passer-by in hopes of food or notice. The following birds are generally housed here :—

- The Glossy Ibis** (*Plegadis falcinellus.*)
- The Black Ibis** (*Inocotis papillosus.*)
- The Scarlet Ibis** (*Eudocimus ruber.*)
- The Common Heron** (*Ardea cinerea.*)
- The Large White Egret** (*Hærodius alba.*)
- The Chesnut Bittern** (*Ardetta cinnamomea.*)
- The Cotton Teal** (*Nettapus coromandelianus.*)
- The Common Teal** (*Querquedula crecca.*)
- The Comb Duck** (*Sarcidiornis melanonota.*)
- The Brahminy Duck** (*Tadorna casarea.*)
- The Sheldrake** (*Tadorna cornuta.*)
- The Wild Duck** (*Anas boschas.*)
- The White-winged Wood Duck** (*Asarcornis Scutulatus.*)
- The Spotted-bill Duck** (*Anas paciflorhyncha.*)
- The Pin-tailed Duck** (*Dafila acuta.*)
- The Mandarin Duck** (*Ex galericulata.*)
- The Red-headed Pochard** (*Aythya ferina.*)
- The Common Gull** (*Larus canus.*)
- The Black Swan** (*Cygnus atratus.*)
- The Mute Swan** (*Cygnus olor.*)
- The Bewick Swan** (*Cygnus bewicki.*)

THE DUCK MUD.





Ducks in a wide sense are web-footed, four-toed water-fowls, with a straight beak, armed with teeth or ridges along the edges of both the jaws. The three front toes are usually fully webbed; hind toe, small; neck, long. In the collection, there are several GEESE, SWANS, and DUCKS. To distinguish the one from the other the following points may be useful to the casual visitor :

Ducks.	Geese.	Swans.
<i>(Anatidae.)</i>		
<i>(Anserinae.)</i>		
1. Nostrils always nearer to the root than to the tip.	1. Nostrils about the middle of the beak.	1. Exceedingly long neck of great size; plumage white, grey or black.
2. Neck moderately long.	2. Plumage always plain, grey or brown with lighter edges, giving it a barred appearance.	2. Space between the eye and the bill bare in full grown birds.
3. Much smaller in size than the swans and geese. Teals are small ducks.	3. Large in size as a rule but not so big as the ordinary tame Indian goose.	3. Middle toe longer than the shanks. The Mute Swan may be distinguished by the front edge of nostril being nearer to the root of the bill than to the tip.

40. The Schwendler House.

This house has also undergone considerable alterations. There is everything there that its inhabitants may want—a nice little miniature lake, in which the proud and ornate Mandarin Ducks disport themselves—a tiny little stream fed by clean pipe water trickling down from a little rockery, with grass plots on one side, and pebbly flats on the other. Little waders hiding in

the grass look quite natural. Here the visitor must not omit to see the rare teal from Lake Baikal, and the gorgeous Argus Pheasant.

By the side of this house is a Kiosk which is occupied by a Greater Bird of Paradise.

Coming a few steps towards the east the visitor will reach the main road, and in front there is

41. The Refreshment Pavilion.

There are two other stalls where light refreshment may be had at reasonable prices. On the south stands

42. The Rodent House.

The Rodents form a very numerous class of small animals, and are scattered all over the world. In all the rodents the canine teeth are entirely absent, and they have got one pair of powerful chisel-shaped incisor teeth in each jaw. Most of the rodents use their fore paws to hold their food when eating.

Unfortunately the group of these mammals is distributed in several parts of the Garden. Squirrels, rats, mice, rabbits, and a few others are those exhibited in this house.

43. Exit.

The visitor who has followed the route given in the **Guide** must have seen practically everything of interest in the **Garden**. Hackney carriages may generally be obtained near the **main** Entrance.

Those who intend leaving by tram should use the **Exit** turnstyle, which leads out of the Garden into the **Orphangunge** Road.

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